(6) Seniors and Winter Living

WRITINGS IN GERONTOLOGY

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THE NATIONAL ADVISORY COUNCIL ON AGING
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Canada

Seniors and Winter Living

Topical texts on winter living in Canadian cities

Monographs by

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PRESENTATION OF TEXTS

Foreword		**Page i**
Preface		**Page iii**
Monographs:		
	Title	**Author**
1.	Changing our Views about Winter	Louis-Edmond Hamelin, Ph.D.
2.	Winter in the Sun	Joanne F. Daciuk, Research Officer and Victor W. Marshall, Ph.D.
3.	The Effects of the Canadian Winter on the Social Life of Seniors	Nancy Gnaedinger, MA
4.	The Winter Checklist	Dr. Cyril Gryfe and Dr. Josée Verdon
5.	The Challenge of Incorporating Senior Sensibilities into Canada's Winter City Mobility Options	Harold A. Hanen
6.	An Older Person's Wish List for Winter	Charlotte Matthews, Ph.D.
7.	Recreation and Fitness in Winter	Sheila Pepper, Consultant
8.	Winter Mental Health of the Aging Population	Michael A. Persinger, Ph.D., C. Psych.
9.	Growing Old in a Winter City	Xenia Klinger-Zepic, MCIP

FOREWORD

The Writings in Gerontology series is intended as a vehicle for sharing ideas on topical issues related to the quality of life of seniors and the implications of an aging population. It is produced as part of the mandate of the National Advisory Council on Aging to publish and disseminate information and to stimulate public discussion about aging.

The Council endeavours to ensure that the articles in the series provide useful and reliable information. Most of the texts are original manuscripts. Some are written by Council staff, others by experts in their fields.

This series is addressed to seniors and the people who care about their well-being. It is hoped that readers will find the Writings useful.

The Council welcomes comments on the topics selected as well as on the content of the articles.

Susan Fletcher
Director
National Advisory Council on Aging

PREFACE

The coming of winter, especially for older Canadians, stimulates a multitude of feelings. To some, it signifies joy, to others dread.

Living in a country where the year is measured by the change of seasons, Canadians from all walks of life have learned to enjoy and cope with what nature offers. This publication features a variety of texts highlighting different aspects of winter for Canada's seniors: dos and don'ts, winter recreation, a checklist, clothing, urban innovations, a wish list, and so on.

The Council extends special thanks to the authors:

- Joanne Daciuk, Research Officer in the Aging and Health Research Unit, Department of Behavioural Science, University of Toronto. Her activities include data management and analysis for various projects in the research unit such as an aging inventory, social and health consequences of long-stay patients in an acute care hospital and the effects of hospitalization on the spouses of long-stay patients.

- Nancy Gnaedinger, MA, worked directly with the institutionalized elderly for six years, and for seven years in gerontological research on a variety of topics, such as

housing, elder abuse, consumer behaviour of the elderly, Native elders, pensions, and living with Alzheimer's disease.

- Dr. Cyril I. Gryfe, Consultant in Geriatric Medicine at North York General Hospital and Queensway General Hospital, both in suburban Toronto. A graduate of the University of Toronto, he specialized in geriatric medicine for more than 20 years as a clinician, educator, researcher, administrator and private consultant.

- Louis-Edmond Hamelin, geographer, studied economics, history, sedimentology and linguistics. A Docteur d'État ès lettres (Paris), he centres his research, teachings and publications on winter countries. Founder of the "Centre d'études nordiques" in Québec, he published Nordicité canadienne which received the Governor General Award. He was Rector of l'Université du Québec at Trois-Rivieres and is a Past president of l'ACFAS. He is a member of the Order of Canada.

- Harold A. Hanen, President of the Winter Cities Association, Chairman of the Calgary Chapter, adjunct associate professor of the University of Calgary, Faculty of Environmental Design, President of Harold Hanen & Associates, and co-ordinating director of the Winter-City

Inter-disciplinary Research Group, University of Calgary.

- Victor Marshall, sociologist, has researched a wide range of issues dealing with aging. In addition to studying 'snowbirds', he is investigating the social and health consequences for the elderly of long stays in acute care hospitals. Editor-in-Chief of the Canadian Journal on Aging, his books include Aging in Canada: Social Perspectives and Later Life: the Social Psychology of Aging.

- Dr. Charlotte Matthews, gerontologist, graduated from the University of Western Ontario in 1968. She holds a Master of Education degree and obtained a Specialist in Aging Certificate at the Institute of Gerontology, University of Michigan, Ann Arbor, 1978. She holds a Ph.D. from the Faculty of Higher and Adult Continuing Education at the same university.

- Sheila Pepper, past-president of the Winter Cities Association, worked as a recreation planner with the City of Ottawa for 15 years and has been an active member of the Board and of the Executive of the Winter Cities Association over the six years since it was begun in Ottawa in 1983. She and her Ottawa Committee started the Winter City Task Force Program in 1987.

- Dr. Michael A. Persinger, professor of psychology and neuroscience at Laurentian University. Over the last 15 years, his research and clinical work have emphasized the relationship between environmental variables and brain mechanisms that moderate climate-associated changes in behaviour. He has written more than 150 technical articles and 7 books in the areas of neuroscience and environmental psycho-physiology.

- Josée Verdon, Fellow in Geriatrics at the University of Toronto, works at both the Toronto General Hospital and the Queen Elizabeth Hospital. Following an internship at McMaster University, she now specializes in internal medicine and is a graduate of McMaster University.

- Xenia Klinger-Zepic, graduate of the Faculty of Architecture, University of Zagreb, has taught and lectured on urban design and open space policy and consulted on improvements to interior environments in senior housing projects. Senior Research Fellow at the Institute of Urban Studies, University of Winnipeg, she reviewed policies for development planning in cold climate regions. She now focuses on housing and mobility needs of seniors.

As President of the Council, I am pleased to be associated with this publication and trust that all readers will enjoy these timely and thought-provoking documents.

Charlotte Matthews, Ph.D.
President
National Advisory Council on Aging

CHANGING OUR VIEWS ABOUT WINTER

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February 1989
National Advisory Council on Aging

TABLE OF CONTENTS

	Page
INTRODUCTION	1
1. VARIABILITY OF WINTER SITUATIONS	2
2. THE WEIGHT OF IDEAS	5
3. PUBLIC AND PERSONAL ACTIONS	10
A NEW ATTITUDE TOWARD WINTER	14

INTRODUCTION

The life of the elderly in winter is a topic with many more dimensions than are currently recognized. More needs to be known about the cold season per se and about the effects of our perceptions of it on our activities. No Canadian, regardless of age, should see winter as nothing more than hostile meteorological manifestations to be corrected by public interventions, a geographical excess to be counteracted by medicine and trips to the tropics. Certainly winter has its difficulties, but stubborn atavistic tendencies, insufficient knowledge, inappropriate technical and social structures, and personal attitudes can accentuate the actual hardships. Winter is not only cold and snow; it's also a state of mind.

The cold season is not an isolated fact but part of several wholes. First, it is part of the year, and what we do and what we eat in other seasons are important to winter. Second, it is part of a larger phenomenon: our entire lives. The winter of an eighty-year-old is rooted in his genes and in the continuum of the last seventy-nine years he has lived. What has occurred in the past is a basis for all the cold seasons to come. Good and bad attitudes are engraved in the cells and in the arteries.
Finally, winter constitutes a social fact. The cultural environment suggests patterns that are appropriate or

inappropriate to a good life. Like smoking, drinking alcohol, eating meat -- or eating tofu and whole grains -- winter is part of social conventions.

Canadians are far from being the only people in the world with sub-temperate climates for part of the year. Some half a billion people living in America, Europe and Asia experience at least one cold month. Most of these countries have developed solutions we could use to our advantage.

The 'problem' of winter as a whole must be rethought. A new vision would in itself offer a wholly advantageous practical aspect. We must convince ourselves that even a small step -- such as scraping the frost off windows so we can open them to get some air or taking frequent walks outdoors -- can lead to considerable improvements in our physical and psychological well-being.

1. VARIABILITY OF WINTER SITUATIONS

Broadening our view of winter uncovers a multitude of realities.

From the point of view of nature, we find there is a variety of 'winters' in various parts of the country: the damp and violent winters of southeastern Canada, the less

oppressive and shorter-lived winters of southern Ontario and southwestern British Columbia, the cold and dry winters of Alberta, Saskatchewan and Manitoba, the heavy winters of the Canadian North. Locally, heat reflection in urban areas, Alberta chinooks, the effects of major bodies of water (the Great Lakes, the Gulf of St-Lawrence, Hudson's Bay), wind, the 24 hours of darkness (lasting some 150 days in northern Ellesmere Island) -- all these modify our living environments.

Snow is the most characteristic element of most types of winter. Heavy snowfalls and blizzards are what we remember longest, even if they account for only a few days of the winter. The snow mantel covering the ground, however, is a long-term point of reference. This shining carpet reflects a large part of the sun's rays in March, when there is a fair amount of sun, and tends to extend winter and hold back spring. This phenomenon discourages many immigrants; meteorological winter does not end with astronomical winter on March 21.

Neither is winter a homogeneous period. In southern Canada where our population is concentrated, the cold season is made up of "the beginning of winter" (little sun, little snow, cold, freezing and icing up) which comes at the end of autumn, "mid-winter" (snow storms for perhaps 10 or 20 per

cent of the days, severe cold 5 to 15 per cent, other days less severe), and "the end of winter" (sunshine, balmier air, snow and ice melting) beginning at the end of February or early March.

All these natural variations in space and time lead us to speak of winters rather than one winter. They also make it difficult to establish uniform national policies.

In the cultural realm the variability is even greater. Climatic changes trigger different reactions in those experiencing winter. Some have migrated to former mining towns in northern Ontario in order to "improve their housing situation", while others, still active and with no financial problems, part with their homes perhaps ten years too soon. Each of the numerous cultures making up the Canadian mosaic seems to have a different level of tolerance towards the period of the year that falls between autumn and spring. Some ethnic groups are more inclined than others to "take advantage of winter", even in Canada. Winter was not a major obstacle to the Inuit in the Far North.

Attitudes are, of course, linked to a multitude of factors: biological health (snow squalls worsen breathing problems), mental health, capacity (whether "young elderly" or "old elderly"), independence in getting around, living

alone or with others, the stress of living arrangements, relationship with the outside, intellectual activity, sufficient financial resources. There might, in fact, be as many 'winters' from the human point of view as there are people!

Given the multitude of situations, this text cannot apply to every individual, every month, or every region in this immense country, but the recommended therapy can apply, in whole or in part, to most.

2. THE WEIGHT OF IDEAS

In many ways, the image of winter is filled with negative myths; such a perception automatically works against the objective of "getting through the winter". What an old-fashioned notion of just surviving winter! In the Middle Ages our ancestors in rural and ill-heated surroundings complained about winter, but at the beginning of this millenium the European climate was not terribly severe. The weather deteriorated around the time America was discovered, when Rabelais tells us that even words froze in the air! Not much is written about winter nowadays, but what is often expresses notions like "slowing down", "dormancy", and everything coming to a standstill, as if nothing good could come of this season, which is even used to symbolize death.

Such verbal expressions convey a perception that is deterministic, incomplete, non-stimulating.

This cultural attitude to winter, which sees anything hindering cultivation as inimical, has not helped people "beat winter". The technical adaptations we have, therefore, are only partial -- snowplows, winter tires, central heating. Until recently, houses were far from properly insulated, and the insulation used just made them more fire-prone. Compared to the clothing of the nineteenth century, today's winter clothing is even less well adapted. The record of the supposed victory over winter seems pretty modest. This partial success affects the elderly more than others. But trying to make winter disappear is not the only solution.

Some schools of social thought have discouraged coming to grips with winter. At a Northern conference held at Lund, Sweden in 1987, Canadians expressed regrets that the urban architecture of their country had developed despite the cold and not as a function of it. All ages are affected by these hampering conditions. Worse, the weather service and the media can work up a catastrophe mentality when there is a blizzard : Warning! Stay inside! Leave for the South immediately! Students and workers start wondering when their buildings will be closed down. Sometimes the news coverage

lasts longer than the weather phenomenon. Regardless of its usefulness, dramatized coverage is evidence of an aversion if not downright hatred of winter, and encourages just one more worry for those in ill health or advanced in years. In fact, everyone suffers from increased pressure; news of this sort is just one more stressor.

Considering the normal continuum of the generations, an equally unfavourable attitude exists towards the elderly. We are long past the Old Testament view of the elderly as revered patriarchs. Instead, the elderly are often ignored in planning our built environment and social infra-structure. The post-war baby boom led to house construction in the suburbs from which people commuted to work in their own cars via expressways. As former commuters grow older and retire, they are suffering from isolation, and public transit is costly and inadequate.

There is also the question of economic cost-effectiveness; those who are perceived to be less useful to society are given less consideration. Many have been poorly integrated into the societal continuum. Putting an end to this segregation requires a vision of society as a whole that transcends age restrictions.

Stereotypes must also be abandoned. For instance, most broken bones among the elderly occur not outdoors in winter

but indoors and in summer (C. Gryfe and J. Verdon). As well, we need to re-examine the axiom that indoor air protects one from colds and that colds are automatically caught outdoors.

Misconceptions about aging do, in short, exist. The first chapter of Aging Slowly (Myron Brenton and Prevention Magazine, ed., Rodale Press, 1983) is devoted to seven American myths that disadvantage the elderly. On top of these, in Canada, we have misinterpretations concerning winter.

Should we not then wish for a concept of winter that is completely different from what we have now? Is it so illogical to move away from an obsession with year-round warmth, with "the spirit of summer" (N. Pressman) upon which so many dreams are based? Must the Mediterranean and California remain the only climatic models? In fact, a large percentage of elderly Canadians do not make extended pilgrimages to warmer climates in winter. And those that do may find the exodus interrupted by illness (J.F. Daciuk and V.W. Marshall); on their return these 'snowbirds' find themselves right back in the environment they were trying to escape.

It makes good sense to adjust one's climatic perceptions to the actual characteristics of one's country of residence.

Winter happens everywhere in Canada; this is not an abstraction to forget, cancel out or run away from. It is a geographical fact that recurs faithfully both in nature and in our culture. Why not make peace with the cold season and establish a non-agression pact with it? This could even lead to what Gilles Vigneault calls "taking possession of our winters." Why not free ourselves of these negative hereditary attitudes? Of a mythology that takes absolutely no account of a part of our culture? Let us listen to the words of painter A.Y. Jackson telling youth to "Take a look at this country; you have never seen it as it really is." What he says about the North applies equally to winter. Think about "Jackrabbit" Johanssen skiing in the Laurentians well into his nineties.

Those who accept winter see this attitude as one of the best (as well as the cheapest) ways of experiencing winter. Each Canadian is both an active subject and an object of winter. A change to a more winter-oriented frame of mind will profit the individual before anyone else. Acceptance of winter means slowing down the process of aging, victory over giving up, over disengagement. It means fewer days of depression, more getting out of the house. "Winter people" have the satisfaction of having retained their personality and a degree of creativity.

3. PUBLIC AND PERSONAL ACTIONS

Gerontology, which dates back to before 1950, has been responsible for a great many suggestions for an improved quality of life. Many types of interventions, reflecting the variety among individuals, have been studied. These considerations, although not referring specifically to winter, are nonetheless valuable here because the cold season is so linked to the years each individual lives.

Long-term good health, the result of a harmoniously functioning sum of the parts of the individual, requires each person to attach considerable importance and attention to it, consulting medical, nutritional and other services as required. The independent elderly -- and even the less independent in extended care -- must make an effort to fight infections, reinforce their defence system, watch their cholesterol, avoid over-medication. Aging can be slowed down through a strategy of proper diet: balanced diets contain fruits, vegetables, fibre, whole grains, vitamins, minerals (calcium and iron especially) and avoid taxing the digestive system through over-consumption of meats. Much can be gained as well by restricting the use of coffee, salt, sugar, sauces and aperitifs. It is healthy to drink several large glasses of uncarbonated water each day and to take one's meals slowly and in an agreeable atmosphere. All these little things can

only help improve our general condition and get us through winter without any serious problems.

Research on accommodation for the elderly is becoming more and more extensive. The first area is architecture: private homes, multiple dwellings, specialized residences, hotels, homes for the aged, and more recently, atriums and covered malls to encourage walking indoors, even indoor gardens. Researchers distinguish the downtown areas with their system of "street living" from the suburbs with their low population densities. Some families move so as to be within walking distance of more services. The text by Xenia Klinger-Zepic gives a list of inexpensive alterations that can be made to housing, such as improved lighting and walk-in showers. The requirements of healthy housing also include an invisible and often forgotten dimension: ambiant air. More attention must be given to the temperature in bedrooms, waiting rooms, meeting rooms, in fact to every part of the building. The best air to breathe is not the hottest (people are comfortable at 20°C or less), nor the driest. Bad air that is recirculated, whether recooled or not, in a sealed building also creates a sort of "greenhouse effect"; this favours the development of bacteria and viruses. What an environment for a person who cannot or will not go outside for months at a time!

Other research has focused on clothing. Since the War, a concept of "clothing units" has been developed in relation to temperature levels. The Far North of Canada apparently requires three to four times as many "clothing units" as southern Ontario. The American army will soon have a new type of warm, light and non-bulky garment; the principle could be adapted to clothing for civilians of all ages. At any rate, the elderly (and others) must dress properly when they go out, even if only for a moment.

Unfortunately, fashion rarely matches ecological conditions, particularly when the windchill factor is taken into account (the loss of heat through the combined effect of cold and wind). Some cultures in the world know more than others about covering up one's head and upper body, decreasing sweating (which ices over the skin and leads to frost-bite) and keeping feet waterproof. Some rigid-soled boots (despite their treads) are simply too unbending to prevent falls on icy slopes and stairs. Inside, merely wearing a woollen sweater and high-topped shoes replace advantageously (from the point of view of cost and air quality) several degrees of heat that would otherwise be provided by a heating system.

The aged generally partake in several networks: family, friends, caregivers, counsellors, group leaders, religious

organizations, public services. Governments make contributions to these via direct funding, but it seems that the target population is waiting for more assistance from various levels of government, for example, for transportation and snow clearing. As for social assistance, Canada might take a page from the book of a number of European countries. One eighty-year-old discussed how these countries offer not only meal and homemaking services, but also bus excursions and controlled physical exercise. In Grenoble (in the French Alps) the elderly contribute to the cost of these services according to their ability to pay. Improvements might also be made in the links between the generations. In recent years distance has created obstacles, but the link still remains viable in both rural and urban areas. Physical proximity of helpers and recipients facilitates contact but the telephone and the automobile make this proximity less essential. Thus, a well-planned combination of public and private actions can counteract the physical and mental isolation of the elderly.

Recreation planner Sheila Pepper has drawn up a list of pastimes for indoors and outdoors: painting, music, reading, letter writing, flower arranging, cooking, making collections, swimming, shopping, gardening, working outdoors, walking, strolls in the park, visits to a museum, volunteering services, jogging under supervision, snow

shovelling (slowly, non-strenuously, and for brief periods of time).

Even faultless assistance by others cannot resolve all the problems of those advancing in years, who must realize that they are their own best allies. It is up to them to define motivations, express needs, watch over group interests, analyse the effectiveness of services received, get involved in activities to break out of the routine, participate in solutions to the problems of housing, clothing, isolation, money, get up out of their easy chairs, walk outside daily (except for the rare really cold and stormy days) and, above all, "keep their morale up". Increased 'winterability' is a do-it-yourself project.

A NEW ATTITUDE TOWARDS WINTER

Scientists speak of the "greenhouse effect," the warming of the envelope of air surrounding the planet; pollution from human activities is one of the causes. Theoretically, a rise in temperature in certain boreal regions should delight residents with a less severe climate, winters that are less cold, precipitation falling as rain instead of snow, more solar heating in March and April, shorter winters.

While awaiting this possible warming trend, three groups

of agents might continue to work together with a view to developing and trying out a new way of experiencing winter, of 'hibernating' but with a new, positive meaning to the word. These agents are the reseachers, who could suggest theoretical and applied models of the relationship between winter and aging, the 'hibernators' themselves, and all private and public organizations involved in this area.

At each of these levels, a holistic approach is necessary. Winter is not an independent and isolated subject. Even if badly handled, it remains a permanent part of our lives. Everything is interconnected, so the mere fact of everyone doing his or her share is a contribution to experiencing better winters in the future.

WINTER IN THE SUN

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Funding was provided by the International Exchange Center on Gerontology through a grant to Richard Tucker, Charles Longino, Larry Mullins and Victor Marshall; by the Academic Relations Office of the Canadian Embassy through a Faculty Research Grant awarded to Richard Tucker; by a grant from the Social Sciences and Humanities Research Council of Canada to Marshall, Tucker and Longino; and by the program in Gerontology, University of Toronto. The data could not have been gathered without the assistance of Mr. Bill Leader, Manager of Canada News.

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
DECISION MAKING	1
ISSUES OF CONCERN	3
CONCLUSION	6
BIBLIOGRAPHY	7

INTRODUCTION

Each year, thousands of older Canadians migrate to warmer climates to spend the coldest winter months. These 'snowbirds' descend on areas such as Florida to get away from the harsh cold Canadian winters, the flu season, and the aches and pains that winter can bring. A study carried out during the winter of 1985-86 reports on the health care issues of 2,046 older Canadians in Florida and their migration patterns. Looking at the experiences of this special group sheds some light on the significance of winter for older Canadians.

Most of the snowbirds were over the age of 65 and retired. They were primarily in the middle to upper class, with the majority having annual incomes ranging from $20,000 to $39,000. They spent up to six months in Florida during the winter and returned to Canada for the summer months. This group of seasonal migrants was generally in good health, with only minor medical problems. They came to Florida to keep active and healthy, but when a health crisis arose most of the snowbirds went home and ended their annual journeys to the sun.

DECISION MAKING

The decision to begin seasonal migration to Florida generally results from vacation experience prior to retirement, as one snowbird reported:

> We started coming to Florida in 1960 for short winter vacations, spending two weeks in the Miami Beach area. In 1968 we bought our house here in ____, and have spent our time here every winter since then. Gradually lengthening the time ever since, up to 11 weeks this year. Our aim is to spend four to five months here, within the next few years.

As these Canadians settled into a pattern of traveling each winter to Florida, more than seven out of ten indicated that they owned both their Canadian and their Florida home. They become a stable group of seasonal migrants to Florida and contribute generously to the Florida economy. This group reported spending an average of U.S.$1,200 per month in Florida.

Life in Florida for these Canadians was enjoyable and relaxing. "Here, I am out painting or swimming or just walking all winter which has kept me much more supple and active." Another snowbird stated: "In our humble opinion, my wife and I believe good health and a suitable environment go hand in hand." They reported having more social activities and more contact with friends in Florida rather than being shut in by the cold and fear of falling during icy Canadian winters. Another person stated:

> My wife and I come to Florida because of the Canadian winters and the people are not unlike our own citizens. We can drive our own car, the gas is cheaper and so is the food.

Snowbirds feel comfortable and enjoy their lifestyle in Florida. Since the language is the same and the culture similar, life is not unlike that at home.

ISSUES OF CONCERN

Despite the advantages of spending winter in the sun, life in Florida for these older Canadians is not without its worries. During the year of the study, the value of the Canadian dollar against the U.S. dollar fluctuated widely, so many people had financial worries. In addition, the study found real concerns about health care costs.

The majority of the snowbirds were covered under a Canadian provincial health care plan and also took out private medical insurance for the duration of their stay in Florida.

Before going to Florida, most of these seasonal migrants had a check-up with a family doctor, what one person termed "a major tune-up." They were likely to fill prescriptions before departure, stocking up on medications using their Canadian drug benefit programs. Some made arrangements in case of a medical emergency, such as travel plans or instructing family members about their wishes.

Most of the snowbirds were satisfied with health care in Florida, but stated in the event of a serious illness they would stop their pattern of seasonal migration and return to Canada. As one person said:

> If we had any health problems we would not likely come to Florida in winter as we have access to very good medical people at home.

In general, because most of the snowbirds were in their late sixties or early seventies, they experienced some health problems but not usually serious ones. Those reporting that this was their last journey to Florida were likely to be older and were more likely than the others to report the existence of a serious health problem such as cancer or heart disease. If respondents experienced a medical emergency in Florida they were also more likely to state that they would not return another year. The existence of a health problem thus acts as a deterrent to seasonal migration.

Most of the respondents had a regular relationship with a family doctor in Canada, whereas they did not in Florida. Many had not used medical services in Florida and were unsure about the care they would receive. On the other hand, since they spent an average of six months of the year in Canada and had spent most of their lives there, they felt more comfortable with medical people and services and used them more frequently. Also, most of the snowbirds still had family members such as children living

in Canada. These seasonal migrants also worried about the cost of hospital stays and physicians' services in the United States. One snowbird said:

> For most of us, being ill in Florida is a very real concern, due largely to the incredible charges by the medical people and hospitals.

When a health crisis occured these seasonal migrants wanted to be close to their families and familiar surroundings. The same pattern of sick snowbirds returning to their northern homes has been found in a U.S. study of New Yorkers who spend the winter in Florida.

Clearly, the fact that medical care is completely covered by public insurance plans in Canada is an encouragement to return to Canada when constant medical attention is required. A respondent stated: "Ontario has a much better health system than Florida, particularly for older people." Perceptions about the health care system in Florida and the cost of health care create a deterrent to the journey south for snowbirds. Returning to Canada to secure health care in emergencies, or stocking up on health care through pre-trip physician visits or pharmacy purchases, are common patterns, although they appear to be based more on the cost than on the quality of health care available in either place. Because of the Canadian commitment to health care

as a right, a feeling of security emerges, particularly for older people.

CONCLUSION

Older Canadians who migrate south for the winter do not place exorbitant demands on the U.S. health care system. Rather, they enrich the Florida economy through their taxes and consumer purchases for a number of years. At first glance, this suggests that Florida's economic gains are Canada's losses, as millions of Canadian consumer dollars flow out of the country while health care costs remain. However, these seasonal migrants continue to pay income and property taxes in Canada, even though they are absent for nearly half the year. For the most part their investment capital probably remains in Canada as well.

For the growing number of older Canadians with leisure time and the economic ability to enjoy it, migrating to a warmer climate where they are stimulated and enjoy social activity probably benefits their continued good health in old age. The harsh Canadian winter is the major reason for seasonal migration. When faced with ill-health, however, most snowbirds return to Canada and cease seasonal migration. The familiar and secure health care system in Canada is a major reason why snowbirds return home.

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THE EFFECTS OF THE CANADIAN WINTER ON THE SOCIAL LIFE OF SENIORS

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
PERSONAL DESIRE TO ENGAGE IN SOCIAL INTERACTION	2
ENVIRONMENTAL FACTORS INFLUENCING THE SOCIAL LIVES OF SENIORS	4
RESOURCES REQUIRED FOR A SOCIAL LIFE IN WINTER	6
WAYS OF CREATING A SOCIAL LIFE IN WINTER	8
CONCLUSION	9
BIBLIOGRAPHY	10

INTRODUCTION

The social lives of most Canadians are affected by our long, harsh winters. We spend more time indoors, we engage in fewer spontaneous activities, and we tend to be more tired than during other seasons. For many Canadians, winter is a season to be endured or escaped.

The effects of winter on the social lives of Canadian seniors can be even more significant. For a number of reasons -- personal, environmental and financial -- the amount of social interaction seniors enjoy during the long winter months can be severely restricted.

But what is a social life? And what factors have to be in place for people of any age to have a social life? What makes seniors different?

For this paper, a social life is defined as face-to-face interaction with people of any age, within or outside the family, for other than merely practical reasons, for instance, for pleasure or recreation.

Three key factors are necessary for a social life:

- a personal desire to engage in social activity;

- an environment that supports social activity; and

- the resources required to go out with other people or entertain at home.

What makes seniors different is that they are less likely than adults of other ages to have all of these key ingredients.

PERSONAL DESIRE TO ENGAGE IN SOCIAL INTERACTION

The desire for a social life can be affected by a number of personal qualities: feelings of optimism or depression, self-esteem, and the availability of people with whom to socialize.

The desire of seniors to engage in social interaction can be negatively affected by the Canadian winter. The long winter nights in northern climates are known to have a depressive effect; this may be even more pronounced for older people who are much less likely than younger people to go out at night. During the day, the extreme cold can seem so unpleasant and the walking so treacherous, that even the simplest venture -- like going next door to visit a neighbour -- appears impossible. This constriction of the living environment, coupled with the sometimes monotonous

scenery of winter, can result in mild depression, which in turn results in the lack of energy necessary to instigate or join in social activity (Persinger, 1986).

Another factor is self-esteem. Even in the absence of depression, the self-esteem of some seniors is continually eroded by negative stereotypes prevalent in society and perpetuated by the popular media. Add to this something as simple as a five-year-old winter coat that will not close around an expanding midriff, or embarrassment at not being able to climb into and out of a car onto snow without help, and lack of self-esteem can interfere with seniors' social life in winter.

The availability of people with whom to socialize also affects social interaction. Generally, older people prefer the company of people their own age for social interaction. Unfortunately, as friends themselves become more constricted by winter, or fall prey to the illnesses that typically peak in the mid- to late winter months, companionship is harder and harder to come by. Among the oldest seniors, this problem can be very pronounced. Unless the desire for a social life is so strong that the age and characteristics of companions matter less, it is quite likely that the shortage of companions in winter will reduce seniors' desire to engage in social interaction.

ENVIRONMENTAL FACTORS INFLUENCING THE SOCIAL LIVES OF SENIORS

In addition to personal factors, several environmental determinants influence seniors' social lives as well. These include the design and location of seniors' dwellings and the type of transportation available.

Most older Canadians live in their own houses (Stone and Fletcher, 1980: 49-78), and most of these were built before 1950. Their design tends not to support the social lives of seniors, especially in winter. For example, snow and ice must be cleared from steps and walkways before occupants can go outside safely or invite people in. Without snow removal, older people can be stranded in their own homes. In addition, many of the indoor features -- such as too few electrical outlets to support a cheerful amount of interior lighting, or lack of insulation, making room temperatures uneven or uncomfortable -- may reduce the incentive to entertain friends at home.

Many younger seniors live in the suburbs, having moved there with their children in the late '50s and early '60s. With their large lots, long driveways, lack of sidewalks and reliance on cars, the design of suburbs does not in any way support the social life of seniors. Unless older people living there can clear snow on their property and drive a

car, or can afford to hire someone to help them, they may become even more isolated than their counterparts in urban residential areas.

For both groups of seniors, transportation can be a problem. Public transportation is infrequent in many residential areas, bus shelters are few and far between, and the design of buses -- with a deep step to mount and few grips for maintaining balance -- is not appropriate for an aging population. Add to these factors a chilling cold wind and ice under foot, and the deterrents to going out in winter for social reasons can be overwhelming.

These restrictions are even more acute for seniors living in rural areas, where properties are larger and public transportation is often non-existent. Consequently, rural seniors are the most likely to experience social isolation in winter.

RESOURCES REQUIRED FOR A SOCIAL LIFE IN WINTER

Even seniors with a strong personal desire for social interaction, and who manage to cope with dwellings and transportation systems that restrict social contact in winter, need other resources for an active social life. These resources are physical, financial and interpersonal.

Reaction speed and agility typically diminish with age. Consequently, for some older people the prospect of going outside in winter is frightening because of the danger of falls. In addition, changes in vision that often accompany aging may make glare from snow and ice dazzling and even painful. Another physical factor reducing outings is arthritis: this condition can reduce flexibility so that even putting on winter garments, especially boots, is very difficult. Cold weather can also increase arthritic stiffness and discomfort to the point of discouraging any but the most basic activities of daily living. Physical strength tends to decline with age, so that the extra energy required to move around wearing extra heavy clothing or to clamber over snowdrifts is simply not available.

Financial resources can make a huge difference to the social life of seniors in all seasons, but specially in winter. A few seniors can afford a number of things which

increase their freedom to socialize in winter, such as: hired help for snow removal; private transportation, including taxis; outdoor clothing that is warm, lightweight and safe (e.g., non-slip boots); special devices to assist independence such as canes designed specifically for walking in snow; and high quality, non-distorting sun-glasses. Many, however, cannot afford these amenities, with the result that social outings are restricted.

Inadequate financial resources not only limit seniors' social outings but can also reduce the amount of entertaining done at home. The price of many foods escalates in winter, as does the trouble of going shopping for that food. Without the physical resources already mentioned, and without enough financial resources to allow expenditures on extras, entertaining at home may be considered out of the question.

Interpersonal factors, such as support from family and friends, can make a great deal of difference to the social lives of seniors in winter. With a reliable group of friends of all ages, and a few family members to give regular assistance, seniors with physical and financial limitations can still have a social life. A friend who offers a ride to church every week, children and grandchildren who visit regularly, a neighbour who drops in every evening on the way

home from work -- these are some of the resources that can make it possible to have a satisfactory social life in winter.

WAYS OF CREATING A SOCIAL LIFE IN WINTER

Many seniors who live in our harsh northern climate, in older homes without adequate transportation, without a great deal of money, and without a complex network of family and friends, still manage to have a social life in winter. How do they do it?

First of all, they use the telephone a great deal. Some seniors make a special occasion of talking to certain friends or siblings every day and to their children at least once a week. Despite the lack of face-to-face and physical contact, this kind of interaction can do a great deal to increase feelings of social connectedness.

Others arrange to have their social life come to them instead of going out: for example, by offering the use of their dining room for a meeting of a local group or club; or requesting a friendly visitor from a seniors' support agency; or looking after a neighbour's child every day after school.

Seniors living in apartment buildings have more chances for a social life because of the possibilities for social exchange inside the building. For instance, people may visit in each other's apartments or have conversations in hallways, the laundry room or mail room. Seniors are often seen chatting in lobbies while they await the arrival of their mail.

Many seniors have not lost the habit of corresponding with friends and far-off family members by mail. Some send and receive 'letters' on cassette tapes. These are valuable forms of social contact.

CONCLUSION

Our harsh Canadian winters can contribute to the social isolation of seniors. However, with support from family, friends, neighbours and community services, and with a little ingenuity, seniors can create and maintain a social life in winter.

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THE WINTER CHECKLIST

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
INFECTIONS IN THE WINTER	2
o TIPS ON PREVENTION	3
NUTRITION IN THE WINTER	4
o TIPS ON PROMOTION	5
HYPOTHERMIA IN THE WINTER	6
o TIPS ON PREVENTION	7
FALLS IN THE WINTER	8
o TIPS ON PREVENTION	9
CONCLUSION	9

INTRODUCTION

Canada is among the few countries where temperatures vary greatly between seasons. From warm summer to cold winter, there can be a temperature difference of 40 to 45 degrees Celsius. All year round, one has to adapt physically and socially to these major changes. Generally speaking, a cold climate seems to be more of a stress on the individual than a warmer one. Hence, for the majority of people, winter is perceived as the hardest period of the year. This probably explains the yearly winter migration of people to warmer climates.

Seniors are no different from the general population. Most would be happier to spend all winter in sunnier and warmer climates. Some of them actually do so every year, as long as their health and finances allow. But for the majority, although winter is a beautiful period of the year, the clean, cold air brings numerous risks and fears, some of them legitimate, others less so.

The belief that winter is more stressful for the elderly person is certainly widely held. The fact that the number of seniors admitted to hospital increases every winter generally confirms it. This increase is related mainly to a rise in the frequency of pneumonia and other infectious diseases, which are quite serious in this population. Other reasons for the rise in the number of admissions may be the high risk

of falling outdoors, with an increased number of fractures; difficulties in home heating, leading to abnormally low body temperature or hypothermia; and impaired nutrition in some elderly people who become housebound and unable to shop for food. These issues are often debated among health care workers and need to be brought to public awareness. Other factors involving the elderly in the winter are as important, but are not as well documented. These include the depressing effects of social isolation and of lower levels of natural light.

This paper presents a review of the main sources of potential problems for seniors in winter, together with tips for avoiding or preventing them.

INFECTIONS IN THE WINTER

Beliefs: Winter is the season of the common cold. Symptoms vary from runny nose and cough to pneumonia. Symptoms may last for days and recur more than once in the same season. Everybody is aware of the seriousness of pneumonia in the older population.

Facts: The frequency of infection in seniors certainly increases in winter, especially the common cold and pneumonia. Elderly people are not only more prone to

infection, but they also seem to have more severe illnesses related to infections.

Pneumonia and influenza together constitute not only the leading infectious cause of death in the elderly, but also the most common of all causes of death among them. That is why these conditions should be monitored closely and treated effectively.

As there is no specific treatment for the virus that causes influenza, the current goal is mainly to prevent it. Routine vaccination against influenza has been shown to reduce both the incidence (the number of attacks) and the severity of influenza-related illness in those at risk. This includes every person over 65 years of age and younger people with chronic diseases; it is recommended that they receive one dose of influenza vaccine in the fall of each year.

o **TIPS ON PREVENTION**

1. Obtain influenza vaccination every fall.

2. Advise your physician of any 'cold' symptoms that persist (fever, chills, cough, etc.)

NUTRITION IN THE WINTER

Beliefs: For many seniors, winter is a time to build up food reserves, including frozen products and canned food. Fresh products tend to be excluded from a winter diet because of their higher cost, lesser quality and physical difficulties in getting out to shop. Supplementation with vitamins is regarded as compensation for the lack of fresh produce.

Facts: Very little is known about seasonal variations in nutrition of senior citizens. All essential nutrients are available year round in Canada, and major deficiencies in protein, glucose, fat, vitamins are uncommon in a balanced diet. Malnutrition has been found in a small percentage of independent, elderly people living in England, but most of them were house-bound for different reasons. No statistics are available for Canada.

Recent interest has been shown in the importance of Vitamin D for the elderly population. Vitamin D is unique in that it is produced in the body after exposure to sunlight, and can also be found in a normal diet. Blood tests show that Vitamin D levels vary greatly in the older population, from abnormally low levels in the winter in areas where inclement weather prevents seniors from enjoying sun

exposure, to a normal level in the summer. The exact meaning of this finding is unclear, and there is some debate about the risks and benefits of taking Vitamin D supplements. The recommended dose does not seem to affect the level of Vitamin D in the blood significantly; as a result, there is no consensus on the value of routine supplementation.

Vitamin C is also of interest. A popular theory was that Vitamin C decreased the frequency of colds in winter, but there have been no conclusive studies on its ability to prevent or shorten the course of the common cold.

o **TIPS ON PROMOTION**

1. Eat a balanced diet according to Canadian nutrition standards. Make an effort to include fresh fruits and vegetables for their essential nutrients and vitamins. If this cannot be achieved, enquire about agencies that bring food to houses, such as meals-on-wheels.

2. Small doses of multivitamin preparations might be of use to people over the age of 75.

3. Large doses of Vitamin D have not yet been proven beneficial and might actually be harmful.

HYPOTHERMIA IN WINTER

Beliefs: Seniors often notice that their tolerance of cold is not what it used to be. They feel the need to dress more heavily in winter and like to keep the room slightly warmer than their younger friends or family members. For some of them keeping adequate heat in the house is difficult. If their rooms remain cold day and night, they don't ever seem to warm up; and as a result, they become weak and vulnerable to disease.

Facts: Over the last few decades, abnormally low body temperature, or hypothermia, has been found to be a relatively common problem among elderly people living alone. Among the causes are abnormally low room temperature and a decreased response to cold stress.

It is well recognized that low environmental temperatures can be harmful to the elderly. This seems to be a particular problem in England but has not been as widespread in North America, where most houses have central heating. The World Health Organization (WHO) recommends a minimum indoor temperature of 18 ^{o}C for active people and of 20 to 21 ^{o}C for rooms occupied by sedentary elderly. Below those temperatures, the risk of hypothermia and complications such as infections leading to death is very

high. These temperatures are minimums; the comfortable temperature depends on the type and level of physical activities and the level of health of each individual.

Response to cold in old age has been looked at very carefully in a few studies and found to vary greatly among individuals. Some seniors respond to cold like younger people do, while others react only to more extreme changes in temperature. A minority are unable to recognize drops in temperature sufficient to cause stress, and their bodies are even less capable of responding to it normally. In these cases, body temperature may fall to a level where serious harm could occur.

o **TIPS ON PREVENTION**

1. Keeping room temperatures as recommended by the WHO: minimum 18^{o} C for active people, 20 to 21 ^{o}C for sedentary elderly, remembering that the comfortable temperature may be higher, depending on the individual.

2. Wear appropriate clothing for outdoor activities.

FALLS IN THE WINTER

Beliefs: Winter conditions can be very trecherous for senior citizens. Stairways, sidewalks, streets are often covered with snow and ice, making them slippery. Hand-rails do not always assure safety, and using a cane or a walker outdoors can be very difficult. Winter clothing and footwear can be so cumbersome that they contribute to falls.

Facts: Studies on falls have not shown any significant seasonal variation, but deaths resulting from falls do increase in winter. No studies have proven that independent senior citizens living at home are at greater risk of falling and suffering fractures in the winter. Most outdoor falls occur in the summer months.

The failure of studies to demonstrate an increase in falls among the elderly in winter may reflect the fact that most falls (70 to 80 per cent) happen indoors in all seasons; seniors tend to stay indoors in the winter and/or are very careful when walking outside. Nevertheless it seems reasonable to conclude that winter conditions increase the risk of falling.

o **TIPS ON PREVENTION**

1. Keep the outside steps of the house and the sidewalk clear of snow and ice, using municipal or other local services.

2. Wear winter clothing (including boots) that is light and properly fitting, that does not prevent free movement and is warm and wind-proof. Newer fabrics ensure that these criteria can be fulfilled at an affordable price.

3. Enquire about special devices (to be put at the end of a cane, for example), to make canes more effective for winter use.

4. Use public transportation or taxis if weather conditions appear unsafe.

CONCLUSION

Winter remains a beautiful season, despite its difficulties, especially for senior citizens. In this paper we have reviewed some of the common beliefs about winter and seniors, the scientific evidence to support or refute these

beliefs, and tips on preventing some of the problems associated with winter, such as infections, malnutrition, falls and hypothermia.

THE CHALLENGE OF INCORPORATING SENIOR SENSIBILITIES INTO CANADA'S WINTER CITY MOBILITY OPTIONS

Harold A. Hanen
June 1988

February 1989
National Advisory Council on Aging

TABLE OF CONTENTS

	Page
INTRODUCTION	1
MOBILITY IN WINTER	2
CITY PLANNING	3
BASIC PRINCIPLES	11
CONCLUSION	13

The difference between survival or not, may be based upon something as simple as the occasional option to move freely in a warm, bright environment.

Dr. Michael Persinger
Winter City Showcase '86

INTRODUCTION

The Golden Years when, with the wealth and hindsight of experience, we put the patterns of our life together into a meaningful whole and harvest our social and material rewards.

There is another side. Old age is also a time when our senses change and our mental and physical dexterity diminish, when doubts invade our self-esteem, when the previously simple annoyances of daily life become obstacles of such magnitude that they inhibit our attempts to live the full urban life.

Slowly, in many cases, the circle tightens. Is it our fault? Or is it the unaware, unresponsive shapers of our cities who, in their youth or affluence, are unable to empathize with a continuum of life they have not yet experienced?

In my view, the citizen's environment should fit like a good coat, be comfortable and flexible. There is little dispute that in this century's mad rush to technology and

material improvement, our cities have become more rigid, fit primarily to meet the satisfaction of working male adults. Children, women, elderly people, and disabled people are merely tolerated.

MOBILITY IN WINTER

In the last two decades, the significant increase of women in the work place, single parents, and retired persons -- coupled with the apparent inability of existing transportation systems to meet current mobility demands-- accidents and gridlock -- compel us to re-examine the underlying principles and values brought to bear in planning them.

Cities can be seen as layers of interrelated movement systems that orchestrate individual and group choreographies. The quality of cities depends, as do symphonies, on the harmonious and fluid interplay of their flows.

This is especially true of movement systems in winter cities, which by their organization and management can dramatically enhance or compromise the life quality of older citizens.

Appropriate mobility alternatives that address the four seasons realities are fundamental to health and happiness at all stages of life. For seniors, mobility is imperative for emotional health (independence and freedom), for exercise (which though different is more important as we get older), for obtaining basic survival needs (food, medicine), and for connecting to the world of other humans and nature. The converse -- restriction -- seriously compromises the possibility of a full later life.

CITY PLANNING

Most Canadian cities are winter cities where the duration of winter's siege can vary from 25 to 50 per cent of the year. Winter has two faces; one is beautiful, quiet and gentle, the other harsh, cruel and bitter. Added to the normal difficulties of realizing pleasurable passage in the contemporary city, older people, one of the most vulnerable segments of the population to winter's cold, must also cope with its additional demands and consequent greater physical and psychological stress.

In Canada since World War II, city planning conventions have given little recognition to the effect of severe climatic conditions on the mobility and lifestyles of the elderly.

In this century, vehicular mobility and high-rise building technology have profoundly increased competition for land surface in city centres. One of the major conflicts is between people with wheels and people without wheels. The outcome has been policies strongly favouring the motorized at the expense of those on foot, policies that slowly and insidiously have also reduced the livability of the public parts of the city.

An elderly person's loss of access to a private car, for instance, by loss of licence, often has a dramatic impact on their feelings of independence, their ability to basic needs, and their capacity to maintain a social network.

Today, the alternative modes of moving about the city, i.e., walking, cycling and public transportation, do not provide very high standards of safety, comfort or convenience for the elderly, even in moderate weather conditions. During winter's bitter cold, only the most solid are able to endure the punishing effects. There have been isolated attempts to provide recreational bike and walking trails, especially in Ottawa and Calgary. These efforts have not become part of the mainstream of city planning practices, however, or an integral part of more comprehensive transportation plans.

Even the thought of harsh urban winter conditions can affect the senior citizen's mobility. Concern about the dangers and discomfort of going out into whitened, windy streets, often leads to hypo-activity and reliance on friends or special transit services. Isolation and dependence are not, of course, symptoms of a healthy life. Given that the will to combat the winter elements is strong enough, the real risks facing the older person are formidable. These include injury through falling, hypothermia, or traffic accident. Apart from the risk of injury, the senior citizen also must contend with the discomfort of waiting at bus stops, being sprayed with slush from passing cars, and inhaling the noxious fumes of condensed, lingering exhaust.

City administrators' unawareness of the impact of winter on older people is reflected in the snow clearance practices of many Canadian cities, which give priority to clearing vehicular roadways at public cost, leaving pedestrian walkways to the inconsistent individual efforts of adjacent private land owners (the practice in Norway is almost the reverse); in the design and placement of sloping driveways and unprotected corner ramp cuts for disabled people, which make pedestrian walkways dangerous ice slides in winter; in the time allotted for the green light on pedestrian traffic signals, which is insufficient to

accommodate the extra time required for cars and pedestrians to clear slippery intersections.

Studies have shown the elderly population to be among those most emotionally vulnerable to winter's grip, especially those exposed to the same restricted environment day after day.

Since many senior citizens live alone, are no longer part of the workforce, or do not live in close proximity to their families, they need access to the stimulation of a normal social life to help alleviate feelings of isolation.

Winter's icy blasts, together with the discontinuous, unprotected nature of the city's movement systems, conspire to thwart participation by older persons in everyday social activities, conversations with neighbours, salespersons, or just people watching.

The street -- traditionally the city's communal living room, the place to stop and talk with friends and acquaintances -- over the last four decades has taken on as its primary function the transit of motor vehicles. Traffic noise, coupled with muffling winter headwear, makes conversation difficult, especially for the hard-of-hearing,

and exhaust fumes, more concentrated in cold temperatures, make the street an intolerable place to linger.

Robert Sommar, a noted environmental psychologist, commenting on the role of sensory stimulation to the quality of life of the elderly, said:

> Vision, hearing and taste fade, and the intensity of stimulation is reduced, thus making the elderly more bored, discouraged and depressed. What is needed are urban places where there is no noise of traffic to drown people's voices, nor exhaust fumes to mask pleasant smells, but rather intensely pleasurable sensations -- perfumed and colorful flowers, the splashing sounds of water, good conversation, sounds of street musicians, and so on. In such contexts even those whose senses are diminished may still be able to take pleasure in all they see and smell and hear.

What can be done to provide more responsive options ensuring access to city amenities for older people during winter's siege? I believe there are some promising precedents in Europe for suburban centres, and in Canada for city centres.

In Holland, Germany and Denmark, some cities and towns have developed a concept inspired by the pre-industrial period. The German version is appropriately called Wohnstrasse -- living street. It consists of a street closed to through vehicular traffic and edged with high-density mixed land uses, though primarily residential. Pedestrians

and vehicles share the roadway, but vehicles may move only at walking speed.

The street offers opportunities to observe daily happenings, to exchange a few words with the postman or the milkman, to do some shopping, to have a cup of coffee and a little schnapps. In a natural way, it allows the development of relationships to replace those lost because of age and retirement. The ability to do all these small and apparently meaningless things makes up a not unimportant part of life. The underlying principles of Wohnstrasse are mixed uses, compactness, and roadways that are shared, but on the pedestrian's terms. These principles are in stark contrast to those underlying the typical Canadian suburban street. There we find a single land use, low density, streets dominated by cars, few casual social opportunities, and travel to necessary services distant and difficult for those without vehicles.

In Calgary in the late 1960s a comprehensive transportation plan was devised for the downtown core that is now being recognized internationally for its climatic responsiveness. At ground level, streets were designated for specific vehicular functions, e.g., a public transit corridor, one-way streets to meet high capacity needs, and two-way streets for slower flows. A pedestrian system was

then overlaid, which included river walkways, two bisecting malls, and block-encircling sidewalks enhanced with arcades and open spaces.

Then at one, two and three levels above ground, a continuous, protected network of walkways was developed, linking retail, residential, cultural, recreational, commercial, and educational activities, parking garages and public transit.

The upper levels were referred to as the "+15", or "+30" or "+45", these being their nominal clearance, in feet, above grade level. Stairs, escalators and elevators provided vertical transitions between the levels. At the upper levels there are currently 41 bridge connections and 9 kilometres of public easements, making it the largest above-grade pedestrian system in the world.

As the system has evolved, there has been a noticeable increase in the number of younger, older and disabled persons in the downtown area in all seasons. On a cold February day, streams of people from many walks of life can be seen in short sleeves and dresses, moving along the upper levels among shops, restaurants, theatres, banks, apartments and fountained garden atriums.

On warm spring days and during Calgary's chinooks, the same promenaders pour out of doors at grade and upper-level plazas and at the Heritage Building to circulate along the Stephen Avenue Mall, which is filled with benches, tables, trees and wandering musicians.

In inclement weather, grandparents can watch children at play in the Devonian gardens at the +45 level, while on sunny days the action is at the outdoor mall playground.

Perhaps the most significant benefit of the +15 system is its encouragement of social overlapping, especially during restricting cold spells. One example is its influence on the lives of the residents of senior citizen housing complexes linked, via the +15 system, to restaurants, hotels, shops, City Hall, the performance centres, the library, and museum. In their daily winter outings the residents come into direct contact with a montage of social opportunities reminiscent of those of the Wohnstrasse but richer in their diversity and uniqueness.

Calgary's success suggests the value of incorporating the principles of compactness, mixed use, seasonal flexibility and user friendliness into future design proposals for winter cities.

Unlike the reductive criteria that underlay the design of post-war movement systems, the criteria for tomorrow's systems must reflect an appreciation of the essential role of mobility to the good life. They must reflect the city's humane character by respecting users' basic needs for safety, comfort, convenience, and delight. They must incorporate greater sensitivity to the transportation requirements of our diverse society and see transportation not only as moving hardware, but rather as user-friendly, multi-modal, continuous, and integrated.

BASIC PRINCIPLES

As cities get more complex and people more dissatisfied with fragmented and simplified reductive approaches to their organization and management, new strategies for ordering the urban environment will have to be devised.

Can we guide the evolution of our Canadian winter cities into truly humane twenty-first century environments, responsive and supportive of the diversity of needs of the expanding elderly population?

I would like to share with you a few basic principles that I feel may be applicable:

1. As interested members of a community we must all be in touch with who we are and where we are. This obviously has implications for our individual and collective self-imagery, our aspirations, our sense of climate and place in nature. A city's physical and social character is ultimately established by the force of the sensibilities and values of its involved citizens.

2. Go from the general to the detail and back again. This requires seeing our urban settlements in the largest context possible and in their smallest details, from regional movement networks to bus-stop bench protection and handrails. It is this back and forth process that creates humane cities.

3. Organize our cities' movement systems so users', rather than administrators' values and priorities are met. This implies accessibility for all -- senior citizens, children, disabled people and the fit -- continuity of multi-modal passage, seasonal flexibility, safety, comfort, and social edges.

4. Extend cycle paths and walkways throughout natural systems in the surrounding region and integrate them into all the surrounding neighbourhoods, including the downtown. Use the landscape to protect the walker and

to create a better balance between natural systems and man-made artifacts.

5. Ensure our cities' movement systems have the capability to maintain novelty and support sociability. They should be clear and inviting and should provide a sense of anticipation, surprise and delight -- the physical design equivalent of being announced by bugles, trumpets, and bagpipes.

CONCLUSION

This is a critical time for the future of Canadian cities. The challenge is to create a more efficient yet more humane twenty-first century city. Canadian cities will continue to grow and change. The challenge is to grow qualitatively, to be open to the subtleties and nuances of the less physical aspects of cities, the excitement of diversity, the subtle beauty of detail, the richness and cohesive power of negative spaces, and the beauty of the four season choreographies of movement.

We can, by thoughtful action, develop the truly basic generators of our city's character...its people!

AN OLDER PERSON'S WISH LIST FOR WINTER

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February 1989
National Advisory Council of Aging

TABLE OF CONTENTS

	Page
INTRODUCTION	1
THE IMPERSONAL, TANGIBLE WISH LIST	2
THE PERSONAL, TANGIBLE WISH LIST	4
CONCLUSION	6

INTRODUCTION

Some wishes are for impersonal or tangible things: they suggest amenities specific to the built environment. Other wishes are for personal or intangible things: they are in realm of the philosophical.

In many ways, a winter wish list by older persons is the same as for any other age group. Most older persons want to remain an integral part of society. Many are reluctant to ask for special privileges. However, aging involves much swimming against the stream. Aging brings in its wake a number of predisposing conditions that make winter conditions a common issue. For example, fear of a fall on ice is ever-present; older persons have a keen awareness of the catastrophic consequences of a fall, and some may be consumed with anxiety. Isolation and behaviour changes may follow. Opportunity for interaction is needed most.

Aging is a balancing act. On one hand an older person strives to remain independent; on the other hand there is the need to maintain interpersonal relationships. The process of aging often leads to some closing out of life's options. Yet there is an attempt to avoid such a closing out. It is a tenuous task. Winter harshness either reinforces or tears apart behavioural and special relationships.

Because aging may involve threats to identity, an environment must be sustained to assist the older person towards a positive identity. As well, concern should be directed to deterrents to mobility, those things that limit the older person's life space. The older person's balancing act must transcend climate.

THE IMPERSONAL, TANGIBLE WISH LIST

- Ice removal by non-corrosive means;
- Safety and security devices that demonstrate the inexhaustible inventiveness of the human mind;
- Innovative housing designs to reflect the requirements of older persons; cluster housing; low-cost retrofit;
- No wind tunnels; protected walkways;
- Adequate outdoor lighting at night;
- Television programs that do not insult your intelligence;
- Party rooms in congregate housing;
- Bright passageways and steps; hand-rails on both sides;

- Entrance areas to accommodate an older person's slower eye adjustments to darkness/brightness;
- Bus shelters; bus stops cleared of snow and ice;
- Boxes for posting mail located inside congregate housing;
- Easily operated snow blowers;
- Automatic garage doors;
- Greenhouses, winter gardens;
- Elimination of exterior steps, or protection against ice formation on steps: simple covers/electric cables;
- No cold blasts from heating systems; humidity control;
- Standards for quality of indoor air: filters, ventilation;
- Clothing with modern insulating qualities;
- Winter footwear with solid grips;
- Easily operated fire extinguishers;

- Communications maintained: no interruption of telephone, mail or newspaper services;

- Riddance of journalists who denigrate winter and laud other climates;

- More planners, designers, developers who know the basics of the aging process and environment/behaviour relationships;

- Low window sills and places to enjoy natural light, winter sun and the streetscape;

- Driving tests in winter conditions;

- Winter festivals: cultural, sportive, for all ages.

THE PERSONAL, TANGIBLE WISH LIST

- Opportunities to connect to the social system;

- Friends who offer you rides;

- Enough income to use taxis frequently;

- Reliable workmen for heating systems;

- Optimal functional ability for independence/autonomy, yet help in time of crisis;

- Realization that long-time residence in a community helps to build informal support systems;

- Ability to show a tougher face in view of the necessity of dealing with inevitable weather conditions;

- Tolerance for 'snowbirds' (traitors!) who leave cold climates for long periods yet continue to collect social benefits;

- Food for winter birds -- an endless source of delight;

- Appreciation for winter magic: sparkle, glitter, freshness;

- Acquaintance with younger people who want to earn money running errands;

- A firm belief that winter cities can transcend the adverse labels now attached to them; bold experimentation is needed;

- A firm belief that winter has a beauty all its own.

CONCLUSION

Fulfilling these wishes is a complex task, beyond the scope of any one discipline or organization. Yet the decision-makers in our midst are given much responsibility. Let's challenge the decision-makers. They can be alerted to the implications of their various actions and show more sensitivity to the needs of various age groups. It is realistic to aim for a range somewhere between the possible and the ideal.

The decision-makers should consult with older persons. Today's well elderly are active, educated and perceptive. Older persons are noted for their creativity in later life. Older persons have the ingenuity and can contribute to the task of smoothing winter's inconveniences. Older persons can join in and help to erase the repressive image of winter. The wish list is a beginning.

RECREATION AND FITNESS IN WINTER

Winters aren't what they used to be -- but they could be more enjoyable!

Sheila Pepper, Past President
Winter Cities Association

February 1989
National Advisory Council on Aging

TABLE OF CONTENTS

	Page
INTRODUCTION	1
PREPARATION FOR WINTER	2
CLOTHING	3
OUTDOORS	
o LESS ACTIVE SENIORS	5
o MODERATELY ACTIVE SENIORS	5
o VERY ACTIVE SENIORS	6
INDOORS	8
o LESS ACTIVE SENIORS	8
o MODERATELY ACTIVE SENIORS	10
o VERY ACTIVE SENIORS	11
CONCLUSION	12

INTRODUCTION

What happened to all those sparkling sunny days and one-horse sleighs, to those crisp, clear nights and the quiet sounds of winter? They're still with us, sometimes, but there are fewer family sleighs, of course, and a lot more activity in the sounds of winter.

The joys of winter change as we grow older but need not be lost. Though some of us dread the coming of chilling cold and icy pathways, there's a lot to look forward to throughout the winter when we're dressed comfortably for it and plan our outings well.

Most of our apprehension about winter derives from the fear of falling on icy pathways, being caught for long periods standing in the cold (and the risk of hypothermia), or the hazards of driving in difficult weather conditions. All of these and most other discomforts of winter <u>are</u> preventable.

We need the help of others in some cases, of course, to clear the ice and snow from pathways before it hardens, the co-operation of those who help us get to our destinations promptly, and help with vehicles when necessary. When we're ill-prepared for many of these conditions, however, the dread is justified.

Adequate anticipation of each day's activities and the need for appropriate clothing, together with equipment for icy conditions, additional car maintenance and anticipation of possible public transportation difficulties, will help our outlook on the coming winter. Some problems cannot be avoided but most can be lessened with proper preparation and planning.

Recreation and fitness in winter for all adults is just as important as in other seasons in preventing illness -- both physical and mental. In winter, with more severe conditions, we might be more susceptible to infections when our general well-being and fitness levels are lower. The increased darkness lowers our spirits, but a more active social life and friends or a volunteer to accompany us to community activities will improve our attitudes to winter. Regular activity and a moderately active fitness program in winter will help maintain blood circulation, skin and muscle tone, and a better defence against illness.

PREPARATION FOR WINTER

As the days grow shorter and the weather less pleasant, a new activity or two often helps to overcome apprehension about the coming winter. Though it's not as easy to get out

regularly for walks, there are many ways to stay fit and enjoy the wintertime more -- both indoors and outdoors.

Planning a new project or activity to begin each fall, or resuming a favourite one, will brighten our anticipation of the coming winter. If it is a pastime that requires two or three outings or indoor sessions each week, a regular degree of activity is assured.

CLOTHING

A comparison of the many new synthetic materials available in all colours and styles will indicate the best individual choice for various outdoor activities. Sitting or moving slowly will not generate much heat, so the choice in these cases would probably include full-length coats, possibly with an attached hood (though sideways visibility is restricted), several layers of thick woolen or synthetic hats, scarves, and mitts (rather than gloves), and perhaps quilted or fur-backed mitts as well, though the freedom to reach and to grab quickly is especially important. Leggings or winter pants are particularly necessary in windy conditions.

Footwear should be roomy enough for a couple of pairs of socks, stockings or boot linings for added insulation -- on

the bottoms as well as the tops of feet. Temporary or permanent spikes on the bottoms of boots and canes will help prevent falls and unsure footing on roads and paths.

More active seniors will be comfortable in several thinner layers, in a variety of materials, of shirts and sweaters, jackets, short and long coats, snowpants and accessories for heads, hands and feet. Specialized sportswear has improved in quality, warmth, variety and availability over the last few decades, and the price range allows for lots of choice for everyone. The heavy old fur coats were very tiring to wear, to move any distance, and especially to be active in for any length of time. The new light-weight comfortable varieties of quilted winter coats and ski suits are the best for sitting outside on sunny and moderately cold days. Some of the new fabrics are expensive, but several thinner, additional layers will achieve almost the same level of warmth.

The following are suggestions for each level of activity:

OUTDOORS

o **Less Active Seniors**

- Travelling by bus, car, or by foot to appointments or shopping for short periods can be a pleasant way to get out regularly for some mild exercise.

- Visiting friends and attending cultural activities in the evening or anytime is an interest to take one's mind off the unpleasantness of winter.

- Sitting outside for short periods, people watching, and sitting, standing or slow moving exercises and stretching are easy ways to get some fresh air and maintain a minimum level of fitness in winter.

- Bird watching and feeding add more interest to an easy outing.

o **Moderately Active Seniors**

- Walk a dog once or several times a day; taking a brisk stroll around the block accomplishes the same level of activity.

- Taking grandchildren to a place to play and supervising them is another relatively easy outdoor activity -- although it does depend on temperature and wind conditions and on the ages of all concerned!

- Sleigh rides or ice fishing can be a half-day or a full day's activity; if it is combined with picnicking and some indoor respite, it will make up a busy day.

- Curling is a moderately active sport.

- Attending community outdoor events for any comfortable period of time will ease the monotony and one can often join in when one feels like it.

Four general amenities adding to the enjoyment of being outside in winter for any period of time usually include light and warmth, to which we can add colour and movement of decorations and sheltering facilities.

o **Very Active Seniors**

- Skating, snowshoeing, downhill or cross-country skiing -- these sports provide the whole body with a constant level of stretching and pushing, not to mention aerobic

conditioning. It is particularly important to go with someone or in groups if at all possible; otherwise few others may be around if one needs assistance at any time.

- Long, brisk, daily walks or horseback riding for a half hour or longer provide a high level of fitness involving most of the body.

  The constant change of scenery in these sports is also stimulating, and the pace can be altered frequently to accommodate varied experience, fitness level, weather conditions, and daily preference.

- Playing games and tobogganing with children may be a bit risky, but children can be considerate and cautious.

- A daily exercise program on a well designed fitness trail can be a constantly challenging activity when the number and height of exercises is increased and when the running directions and series patterns are varied. (Group activities such as these often include many age groups, and seniors sometimes show up younger adults with a better paced, more experienced program.)

Although primarily a sitting activity, snowmobiling can be very strenuous because of the type and weight of machine, difficult terrain and hidden hazards. Few of us over fifty have grown up with these vehicles, so our knowledge of and experience with them is limited. Again, caution and lots of company are important for a safe, enjoyable outing. Additionally, a safe bonfire on open ground or in an oil can will provide a welcome pause.

INDOORS

Community indoor activities increase each fall, and their diversity provides for a wide choice.

o **Less Active Seniors**

- Volunteering their help in a community telephone contact service is most rewarding.

- Increasing contact with friends on a regular basis, especially when they are ill, is a most worthwhile pastime.

- Having a personal alarm system and several new types of security additions built into one's home

will provide regular contact for those living alone, especially during this more isolated season.

- Many needlework, music, painting and book groups meet regularly all fall and winter, and the location can be moved --- to be held at the home of a temporary shut-in when necessary.

- Indoor or greenhouse gardening can make this period without green lawns and flowerbeds more pleasant and a good preparation for spring planting.

- Bed, chair and standing exercises at home alone, with a T.V. leader, with a friend or on the telephone together provides a regular interest and modest exercise.

- Family games, crafts, reading and crossword puzzles keep the mind and wits sharp during long dark winter days.

- Hot tubbing is a fairly new winter activity and light housekeeping a very old one for those who enjoy modest stimulation!

o **Moderately Active Seniors**

Many activities are available at local community centres -- outing clubs and luncheon groups, drop-ins, dances and billiards are a few of the usual offerings.

- Participatory cultural events, bus trips and visits provide a stimulating variety of activity.

- Recreational bowling and curling leagues keep small cohesive teams active on a regular basis the whole season.

- Swimming and aquatics classes, woodworking and metal work can be done on any schedule, or in small or large groups if preferred.

- Meals on wheels, other hospital or shelter volunteer jobs and service club activities are examples of most rewarding regular outings usually undertaken during the winter months, and during several months on either end of the season, or all year round.

o **Very Active Seniors**

- Exercise, aerobic fitness and weight training (hydrogym) classes maintain muscle tension, skin tone and aerobic capacity.

- Traditional, non-contact sports such as badminton and tennis, basketball and volleyball provide for recreational or competitive levels of participation. (Similarly, bowling and curling have competitive counterparts for this group.)

- Other racquet sports such as squash, handball and racquetball are gaining in popularity for seniors.

- Water sports such as water polo, synchronized swimming and masters competitive swimming are excellent ways to maintain total fitness.

- Masters level competition in many sports has had an increased following in the last two decades.

- Folk dancing classes and clubs, modern dancing and ballet are fast-paced, exacting activities for moderate to highly skilled individuals.

- Horseback riding in an arena maintains a year-round interest if one wishes.

- Complete house maintenance, repair and remodelling may interest those who are appropriately skilled and motivated!

CONCLUSION

Neither winter and nor community services and facilities are what they were 40 or 60 years ago. Modes of transportation and the distances to them have changed radically. Winter in some communities has been moderated by construction, industrial emissions into the air and water, and buffering landscapes to provide sun traps. In others, winter winds have been made more severe by the channelling of wind between tall buildings, ice and snow falling off steeply sloping roofs, or frequent thawing and refreezing of pathways near buildings.

Setting reasonable personal goals for weight, strength, size and ability each winter season will enhance the enjoyment and satisfaction of a regular activity program, regardless of its intensity. Such regular activity and good eating habits prevent or slow down osteoporosis and arteriosclerosis and improve nutrition.

Planning time and financial resources for all activities are most important as well, as is planning of the most absorbing of hobbies when a cold snap confines us indoors for long periods.

To quote a friend, "The joys of winter, like clothing, require changing" occasionally to provide for continual or moderately varied enthusiasm for the October-to-April stretch.

Certainly, many varieties and levels of activity are available, but togetherness, both indoors and out, and planning a season or a week (or even a day in the case of weather) in advance are the keys to a pleasant winter. They add to the satisfaction and enthusiasm of regular activity throughout the fall, winter and early spring, until just quiet enjoyment of being outside is almost no effort at all!

WINTER MENTAL HEALTH OF THE AGING POPULATION

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
FACTORS INFLUENCING MOOD	1
EFFECTS OF THE WINTER SEASON/SOLUTIONS	4
CONCLUSION	9

INTRODUCTION

Mood influences a person's sense of self-importance and determines their anticipation of the future. When mood is depressed, the person feels worthless and life appears meaningless. If the condition continues long enough, a sense of learned helplessness develops. When mood is elevated, the person maintains a sense of self-worth and the future, no matter how limited in real time it might be, becomes a pleasant expectation.

A person's mood affects both mental and physical health. When depressed, the person becomes socially withdrawn and may exist in a twilight of consciousness. Sustained depression contributes to the risk of malignant cancer and facilitates the occurrence of heart failure. Often the depression may be masked. This negative state may be confused, particularly during the winter, with a low-level influenza, general lethargy or the common cold. Masked depression may also emerge as more frequent somatic complaints: the aches and pains of daily living.

FACTORS INFLUENCING MOOD

Many factors influence mood and consequently mental health. The propensity for unpleasant mood alterations can be inherited or prompted by changes of specific normal chemicals within the brain. However the major sources that drive mood occur in the environment. They include three classes of stimuli: 1) changes in physical variables, particularly light and temperature,

2) frank physical restraint or reduction in activity, and 3) the sense of internal control over one's personal environment.

Winter in Canada is characterized by substantial changes in each of these three classes of stimuli. Both the duration and intensity of light are less during winter. This deficit in illumination can promote depressed mood; appropriate levels of artificial lighting can reverse these effects. The biting cold, despite the occasional pleasant experience, dominates behavioural time. Cold restricts physical activity, a factor that encourages frustration and lowered mood. All of these factors remove one's sense of control. Without a sense of real control, hopelessness emerges.

Whereas the young and active can cope with the adverse effects of winter using a variety of strategies, the geriatric population is much more susceptible. Because of changes in their physiology, older people become psychologically more sensitive to cold. Because of their relatively limited mobility, senior citizens are forced (by real and anticipated dangers) to remain at home. Inappropriate overhead lighting adds its measure to the untoward effects of winter restraint.

Coerced hypoactivity and restraint add to the sense of helplessness and are worsened by the boredom of winter: the endless string of white days. The usual sources of summer

stimulation, the sounds of birds and the smell of flowers, are gone. Instead there is a shift towards internal orientation and concern. With less novel stimulation to break the boredom of day-to-day living, the older person spends more time ruminating and reflecting about things that are most aversive: obtaining food from the local grocery, insuring delivery of medication, loss of youth, death or an uncertain future. The fears that were suppressed when cerebral time was committed to the status of the job now emerge (particularly in newly retired males).

Untrained observers and even older people may not discern the change in mood because it occurs so slowly and lags behind changes in the weather. The decreased light, coerced hypoactivity and general feelings of loss of control have cumulative effects upon mood. Although these conditions begin in late November or December, their effects on mood are most evident between late January and March. During this time the negative effects may become so severe that substance abuse, either from medication or alcohol, emerges as a problem. If couples are living together, irritability and aggression seem to predominate.

Simplistically, one would think that as the number of hours of sunlight increases and the light intensifies by mid-March, that mood would be elevated. However, because of the lag between changes in conditions and changes in mood, depression may

still be present. The occasional warm day, invariably followed by another grey and wintry episode, evokes frustrative aggression. It is seen as irritability, sometimes towards oneself, more often towards other people. It is during this period that death, accidental or self-imposed, becomes more prevalent in the older population.

EFFECTS OF THE WINTER SEASON/SOLUTIONS

Winter does affect the mood of older people. Despite well-intended proclamations that winter is fun and enjoyable, the history of the senior population in Canada during this season has not been positive. The problems were merely masked during the days when seniors were an integral and meaningful part of larger families. Those days have passed, as the fragmented and nuclear family has left the average senior alone or with a spouse or spouse-surrogate.

There are solutions to the effects of the winter season and the adverse weather upon the mood of older people. Any single solution will not totally reverse the problem because its sources are many and varied. The solutions involve grappling with and strategically reversing the conditions that contribute to the psychological effects of winter.

The first level of change requires adjustment of lighting and the maintenance of suitable room temperature. Because many seniors have minimal incomes, appropriate lighting might be perceived as a waste of money. In addition, poor lighting might not be noticed if there is failing vision. However bright fluorescent lamps, especially in the room where most waking hours are spent (usually the kitchen), can contribute to driving the hormonal mechanisms that maintain pleasant mood.

Ambient temperature is a very important factor for promoting pleasant mood. Older people, for a variety of biological reasons, are responsive to subtle changes in the air temperature. In fact they are most comfortable within a much narrower range of humidity, temperature and breeze index than younger individuals. Many older citizens require a slightly elevated room temperature to be comfortable.

A paramount problem during winter is a constant supply of fresh, pleasantly smelling air. Because of the anatomical construction of the human brain, conscious and unconscious (from air chemicals affecting the nasal membranes) smell have profound effects on mood. Specific smells are known to affect the psychological factors that contribute to reproduction and preference of social partners. Low-level release of pleasant, summer-related smells in one room of the house during the winter allows intermittent exposure to the stimulating effects of

positive olfaction. The smell factor is particularly important to the older person who lives in an old musty house.

The primary psychological factor that contributes to winter mood disorders is boredom. This results from the increased shift in behavioural time towards 'sameness' in the living environment. Behavioural scientists can calculate when boredom begins. Assuming the normal onset of winter snow cover, boredom should begin in mid-December; however this is often compensated by the conditioned anticipation of the solstice holidays. Once they have been completed, there is a precipitous January drop in mood.

The solution to boredom is **intermittent novelty**. One approach is randomly to determine 'novel days' for the critical months of the winter. The time between novel days should be on average about 5 days. Once they are determined, the schedule should be followed as stringently as that of a medication. No matter how bad or how good a person feels when a novel day occurs, the schedule should be followed. The most common error that destroys the effect is a decision to postpone a day because of some intervening event.

Activity on the novel day may last between an hour and three hours during the favourite time of the day. The activity should be one that is positive but infrequently engaged in.

Typical examples are watching a favourite movie, preparing a special meal (including extras, such as candle light, presence of an acquaintance), or even changing the background smell of the household.

Boredom for the older members of our society is often compounded by the decrease in voluntary control over their environment as a result of physical restraints or decreased energy. Loss of the feeling of control produces feelings of helplessness. Winter promotes these factors because it inhibits one of the most important freedoms: easy and frequent access to the out-of-doors.

However a sense of control can be regained through a multitude of simple procedures. Video cassette recorders allow choice in selecting movies and videos of distant family members or scenes from a summer outing. There is a psychologically critical difference between days of passive submission to one's environment and a few daily hours of control over the stimulus setting.

The coerced hypoactivity of the winter season is more difficult to address, given the structures of contemporary architecture. Most housing for aging populations consists of solitary dwellings or dormitory-like containments. Whereas the latter do allow for freer movement, the former are restrictive.

One successful approach to reducing the adverse effects of winter hypoactivity is involvement with group social-exercise programs, giving seniors access to age-appropriate exercise in the pleasant context of social interaction with other seniors. However, community commitment to these programs is unfortunately a prerequisite.

The future of the quality of psychological life for the geriatric population depends heavily on current decisions for building design. Relatively little attention is given to the subtle stimuli that can influence the psychological well-being of older people during Canadian winters. Many architectural design decisions are made by individuals who do not appreciate either the importance or the sensitivity of psychological factors in mental health.

One optimal architectural approach would be to incorporate the privacy of individual dwellings with access to novel or free space. Within the individual dwelling, design would insure voluntary control over the environment. Wall panels containing illuminated keys or buttons controling access to fresh air, olfactory stimulation, music and even video surveillance of the outside would enhance this sense of control and hence self-esteem.

CONCLUSION

Social interaction, a vital factor that is often undermined by retirement and restrained physical activity, can be facilitated by providing for access to areas where other seniors gather. Because many seniors still prefer, and indeed have tremendous potential, to produce and contribute to society, these areas could contain technical facilities to maintain skills and thus enhance the sense of worth. Although a natural warm climate is often a preference, the design of a summer room in which the smells, sounds and sights of that season would be available one day a week (in order to minimize habituation) would add its measure to reducing winter's adversities.

Mood, although a pervasive term, is the affective core around which the quality of psychological life exists. When mood is depressed, the adverse effects occur slowly and may not be obvious; they may even be attributed to other, irrelevant sources. Canadian winters have particular effects on older people who have served their time as the custodians of culture. Although there is no single solution to these complex effects, systematic implementation of approaches such as those described in this paper can significantly reduce the adverse effects of winter. When they are reduced, the positive factors gain.

GROWING OLD IN A WINTER CITY

A challenge to independence and individuality

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
YOUNG HOUSING AND AGING OCCUPANTS	2
GROWING OLD IN THE COLD	5
STAYING PUT IN SUBURBIA	8
ALTERNATIVES TO SENIORS' PROJECTS	12
CONCLUSION	15

INTRODUCTION

Architects and designers have an important role in understanding the special needs associated with growing old so that they can experiment with new ideas for housing and urban design that are more appropriate to those needs. Without these new ideas, it has become evident that living space designed for people in the prime of their physical and emotional lives will undermine independence and individuality in the later years.

The organization of living space -- which covers everything from bedrooms, homes, backyards and neighbourhoods to parks, downtowns and metropolitan regions -- should begin with the question of who that space is to be designed for. More often it begins with an assumption, and that assumption does not usually include the elderly.

We have an enormous amount of housing space in Canada, the highest per capita in the world. We also have a high and growing proportion of elderly people in our population. Yet the needs of the elderly have not been taken into account. We built millions of acres of suburbia to house the baby boom generation, but we failed to take into account that baby boom parents would grow old, that people's needs would change, and that the design of our living space would have to change if that generation was going to enjoy their golden years.

Our northern climate adds to the stress of living and to the design challenge facing architects and urban planners in providing truly livable housing and cities for the elderly. This paper identifies specific problems that winter conditions impose on design for a population that is growing older in urban space designed for a younger generation. It also proposes specific ideas for minimizing the hardships of growing old in a winter city.

YOUNG HOUSING AND AGING OCCUPANTS

From the air, Canada looks like a young country. The cities are bright and fresh, and the housing stock is on average younger than the people living in it. That sounds like a positive factor, but it disguises an emerging housing crisis. This crisis has nothing to do with the age or condition of the built structure; rather it concerns the misfit between the housing and its occupants.

The majority of seniors in Canada live in privately-owned single-family houses. Those houses are well looked after; they have generally been paid for and represent the reward for a life of hard work and sacrifice. Seniors want to live out their lives in familiar surroundings, but they often cannot. The house built originally for a young active family becomes unmanageable, its maintenance costs and its space become a burden. While there is

a strong desire to remain in one's own house and to stay in the neighbourhood, many seniors are forced to move into less expensive and less satisfying accommodations for financial reasons or because they cannot cope with the problems caused by the physical inadequacy of those houses or the lack of services in the neighbourhood.

If those homes could be modified to suit the new needs of their now elderly owners, and if the new demands for higher levels of health and social services could be provided within neighbourhood, the move to seniors' housing or to a more institutionalized setting could be postponed for many years.

In Canada, with our long winters, low temperatures, winds, ice and snow, any housing conditions that contribute to loneliness, isolation and depression are exaggerated. Extremely simple but essential things, such as visits from friends and relatives, which are taken for granted in more temperate climates, are often major undertakings for Canadians in winter. When special effort is required to cope with the adversities of winter, to get to church or just to the corner store, sometimes the only solution for seniors is to remain at home, imprisoned by the design of their shelter and community. This approach to winter may suit the physiology and lifestyle of bears, but it is not what most people have in mind for their retirement years.

Only recently has professional attention been focused on how cold climate affects human needs and lifestyle and how the built environment can amplify or reduce the negative effects of climate. Because much of modern housing and urban design philosophy and building practice derives from more southerly climates, we experience more hardship than necessary. However, to modify what we have built, now that so many of us are growing older and less able to cope with designs that are poorly adapted to winter climate, will require major co-operative efforts between governments, the building industry, the community at large, and seniors themselves.

If seniors are to retain their independence longer and remain in their own homes, substantial changes will be required in the organization and delivery of health care, community and social services, and transportation in the city and into suburban neighbourhoods.

Funding for home improvement programs to extend the livability of suburban housing for the elderly will be needed. Such renovations will remain the responsibility of homeowners, but new programs, grants and advisory assistance will have to be offered by governments. These public costs will be offset by reduced demand for new seniors' housing and by a growing number of happier and more independent seniors.

GROWING OLD IN THE COLD

Winter can be as beautiful as the postcards, but inevitably winter months mean more time spent indoors, substantially reducing the extent of our living space and reducing our mobility. Outdoor activities are more limited for seniors because of the cold and dark, and because outdoor space has not been designed to take into account seniors' growing sensitivity to the cold and less than optimal strength or co-ordination and balance. Slippery steps without handrails, doors, walkways and driveways drifted with snow, icy corrugated sidewalks, snowbanks created by municipal ploughs all too eager to keep vehicular traffic moving -- all of these are discouraging and dangerous.

So the elderly, like the very young, tend to be confined indoors. Less active, and suffering perhaps from aggravating health problems, the elderly need to keep warm -- a simple requirement, perhaps, but the cost of heating, often increased by poor insulation, non-functional room layout, and a high proportion of unused space, becomes a major concern of senior owners.

Fewer daylight hours and dull grey days, especially in regions with high precipitation, increase irritability and depression. While the solutions are not as easy as turning up the thermostat to get more heat, we should expect a little more

creativity from architects and builders. The elderly, with diminished vision, are more affected by the reduced amount of sunlight. Levels of interior illumination have to be increased to compensate for the loss of vision. Even simpler things, such as the placement of lighting fixtures and their brightness levels, should be one of the concerns of designers doing renovations for seniors.

The individual house is the best and easiest place to introduce changes to improve the quality of life during the winter season. (For example, if getting up and down stairs is becoming a problem, then modifying the interior floor plan to put a bathroom and possibly a bedroom at ground level would be one solution to extend the livability of the house.)

Other less radical and expensive ideas involve rearranging and redesigning individual rooms for greater safety and comfort. Some of the more obvious ideas are

- replacing bathtubs with walk-in showers to reduce slips and falls;

- installing bathbars and rails for the same purpose;

- installing at least one window with a lower sill on a south or west wall to provide more light and sunshine, possibly to be used as a greenhouse;

- enclosing an existing porch or balcony to create a windbreak at the entrance or a greenhouse space where sunlight and flowers could be enjoyed during winter months;

- installing adequate lighting at all major changes of level in the house, such as stairways, and in the kitchen;

- replacing round door knobs, taps and other fixtures with those that are easier to operate, especially for those with arthritis or other problems of strength or dexterity;

- replacing narrow bathroom doors with 30-inch openings to facilitate access by wheelchair or walkers.

Some owners will be able to undertake these improvements, but many will not be able to afford it. In these cases, special assistance and financial aid will have to be introduced. In Sweden, for example, financial assistance policies enable the elderly to remain independent as long as possible. The elderly

are protected from inflation and rising home costs. Grants are available to adapt dwellings to the needs of disabled occupants, and improvement loans are available for owner-occupied housing. France has also initiated policies, including a home rehabilitation program directed primarily at the supply of adequate personal care facilities and heating.

Overall, however, too little public attention has been given to the potential of adapting homes to help older people to remain independent at home. The result has been that the housing problems of the elderly are often misinterpreted as problems of dependency; instead they should be regarded as deficiencies in housing and neighbourhood design that can be rectified. Instead of having to provide extra services, care and surveillance, we should be paying attention to those design factors that contribute to dependency and offer ways to adapt housing to minimize dependence.

STAYING PUT IN SUBURBIA

Most Canadian seniors live in single-family detached dwelling units that they own. Seniors now in their 60s likely bought their homes 30 years ago. Typically these houses have two floors, 3 or 4 bedrooms, a large family or recreation room, and a 2-car garage and are located in one of the many sprawling subdivisions built after the war. These houses were designed to

accommodate a young family with a steady income and easy access to bank loans.

Increasingly, these houses are occupied by elderly couples or single people living on reduced incomes and facing growing maintenance costs and municipal taxes. In many cases the house, now free from mortgage, is the only asset and security seniors have. Their dilemma is whether to sell and move to different accommodation that meets their needs more closely, or to stay put and to try to overcome the living problems inherent in the house and neighbourhood. Only with changes in housing design and the introduction of more appropriate neighbourhood services and community support will they be able to stay put.

Most elderly Canadians would prefer to remain in their own neighbourhoods and to avoid the trauma of uprooting and moving out of familiar surroundings. But much of suburbia presents major problems to growing old with independence.

Isolation and loneliness, aggravated by winter immobility, could be relieved considerably by providing ways to enhance companionship. (For example, an additional self-contained unit within a single-family house could be rented out or provided to a live-in companion. The companion would of course also value privacy and independence.) Adapting the suburban house to meet this need for social contact will mean changing zoning bylaws

and new sources of low-cost financing for construction. For seniors wanting to remain active, overseeing renovations and being a landlord or landlady could bring considerable satisfaction.

However, most municipal bylaws do not permit two self-contained units within a single-family dwelling. Changes in zoning can only be introduced if support is expressed by the majority of residents. Organizing seniors and neighbourhood support for such zoning changes would be another activity supporting independence and self-interest.

It is one thing to grow older in an area where shops, doctors' offices, churches and transit services are all a part of the neighbourhood. It is another matter to live in suburbs where such services are far removed from homes and may be accessible only by car. But that is where the majority of the elderly in Canada live.

The most difficult problem for seniors living in suburban areas is the lack of adequate transportation services. Spread out development at low densities may once have been the suburban dream, but now it just isolates those who cannot afford or do not want to drive. Many forms of transportation services have been experimented with to provide more convenient mobility in the suburbs, but they tend to be expensive to operate, and few

communities have been willing to pay for them. However, with their increasing numbers, seniors should be taking action to modify the way their communities are organized and financed so that their changing needs can be met.

Convenient and safe walking is another consideration that has been neglected. Providing more shelters at transit stops, some of them heated, and well-lit pedestrian pathways should not involve major costs. Where there are no sidewalks along major roads, thought should be given to providing new pedestrian connections to shorten the distance and reduce walking time. Such pathways would be designed to link the neighbourhood together for the senior pedestrian -- homes, community centre, fitness club, park and bus stop. The pathways should be protected from strong winds, surfaced with non-slippery pavement, well lit, and supplied with benches at appropriate intervals.

Besides transportation services and good pedestrian facilities, there is a growing need for new community services, health care centres and seniors' parks and recreation if seniors are to stay in suburbia. The reduced scope of activity in old age requires park facilities different from those required when most users are children.

Local parks should be designed to promote social interaction

and not be totally activity-oriented. Simple pleasures are important: sitting in the sun, opportunities for birdfeeding, some ice skating, a cleared walking path under pine trees, and a place to sip a cup of tea or coffee in a winter garden would do a lot to make life less dreary in the winter. Again, suburban seniors will have to become politically active if they are to obtain these amenities, because no one else is seeing things from their perspective.

ALTERNATIVES TO SENIORS' PROJECTS

The move away from home and kin is unavoidable for some seniors, but there is growing dissatisfaction with existing forms of senior residences. Until recently this accommodation was provided in the form of high-rise complexes with limited amenities. Only the most expensive and exclusive residences offered an environment that was not institutional and that catered to the independent lifestyle of residents.

The new generation of seniors is used to a much higher standard of living. These seniors are demanding more living space and a wider variety of services, ranging from hair dressing to fitness centres and private dining rooms where they can entertain their guests. Traditional 'old folks' homes will soon become a thing of the past, as is happening throughout Scandinavia.

The current trend in housing for seniors is towards residential hotels and service flats, where much more flexibility in accommodation and facilities is provided to satisfy the needs of individual residents. Even the term 'hotel', as used in Sweden, was adopted to avoid association with the institutional character of existing projects. The idea behind service flats is that seniors can lease their units, furnish them with their own furniture, and have access to all medical, food and personal services on a 24-hour basis. In addition they can purchase domestic services if required.

Considering the social needs of seniors opens up an important new area of design. Beyond the new social considerations in designing housing for the elderly, there is a very special need to deal with winter. Adequate exposure to sun, daylight, vegetation, animated surroundings, contact with nature -- all are absolutely necessary stimuli for everyone living in cold climate countries. These should be primary considerations in the design of new housing for seniors. The new awareness of how climate influences our well-being should be combined with the opportunity to introduce appropriate designs to reduce the negative aspects of winter. This would be a major contribution to the welfare of seniors.

Year-round environments have been created successfully in

commercial developments, but they are perceived to be costly and offer low return on investment in residential projects. Glass roofs, atriums, winter gardens, protected outdoor sitting areas, recreational space that can be used year round (but is not totally enclosed) -- these design elements can be incorporated in seniors' residences to reduce the amount of time spent indoors in winter and to minimize the adverse effects of winter.

The Scandinavian countries have gained considerable insight into the design of buildings that respond to local climate conditions and seniors' needs. Projects have been designed, built and evaluated on their physical performance (e.g., energy saving and maintenance costs) and the social needs of inhabitants.

A housing project in Eslov, Sweden built in 1983 has demonstrated the versatility of glass in creating an environment that is livable year round. The 126 dwelling units (2-storey townhouses and apartment units) border a 376-metre glass-covered street. This internal street serves as an extension of individual, private living spaces as well as a meeting place for residents. In Sweden, as in Canada, where people are forced to spend many months indoors, this concept provides an alternative that was embraced enthusiastically. Although the project was not built for seniors exclusively, a large proportion of owners are in fact elderly.

In Iceland, another interesting housing concept involving a round house design was completed in 1987. Units are arranged in a circle, with a glass-covered central space accommodating a communal garden and recreational facilities. The glass roof also covers individual backyards, thus creating all-season greenhouses.

While these examples illustrate creative use of technology in new settings, for most of us the real solution lies in adapting existing housing and reconstructing suburbia.

CONCLUSION

There is considerable opportunity to enhance the quality of life for the elderly in winter cities through design. Ideas range from the very small-scale changes that any homeowner can make to correct obvious deficiencies in housing designed originally for young and growing families, to large-scale architectural ideas for creating more livable year-round space in new seniors' residences.

Underlying all such changes, however, is the need for seniors to identify and express the inadequacies of existing housing, neighbourhoods and public services. Without that expression, there can be no new ideas, no social recognition and

no opportunity for the design professions to make their contribution to extending the independence, happiness and fulfillment of the golden years.